DOCUMENT RESUME

ED 375 678 FL 022 534

AUTHOR Stewart, Osamuyimen Thompson
TITLE On the Asymmetry of Serial Verbs in the Edo Language.
PUB DATE Mar 94
NOTE 23p.; Paper presented at the Annual Conference on African Linguistics (25th, New Brunswick, NJ, March 1994).
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *African Languages; *Bini; Foreign Countries; Grammar; *Language Patterns; Language Research; Linguistic Theory; *Phrase Structure; Semantics; *Uncommonly Taught Languages; *Verbs
IDENTIFIERS Nigeria

ABSTRACT

The serial verb construction (SVC) in Edo (Bini), a language spoken in Nigeria, is examined, and an analysis that systematically characterizes the notion of functional relationship of verbs within these constructions is proposed. It is argued that the verbs in series are sensitive to different semantic and grammatical phenomena and are therefore functionally asymmetrical. Given this, it is shown that the relevant structure for the SVC is one that contains the verb phrase shell hypothesis and also has a functional category Aspect. Under this proposal, the first verb has semantic content in the "cause/process/precedent" relationship and the second in the "state/result/consequence" relationship. Both verb phrases are shown to constitute sub-events in the complex event-structure of the serial verb construction. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 375 678

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

O.I. Stewart

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

On the Asymmetry of Serial Verbs in the Edo Language*

Osamùyimen Thompson Stewart

McGill University

0. Introduction.

The Serial Verb Construction (SVC) can be described as one in which two or more verbs (dual or multi-headedness[1]) that have no morphological inflections which occur within a single predicate denoting a complex Event and with each of the verbs exhibiting different "functional relationships". The following are examples of the SVC from the Edo language.[2]

(1) òzó lé èvbàré ré
Ozo cooked food eat
'Ozo cooked the food and ate (it)

FL022534

* This paper has benefited immensely from discussions with Lisa Travis, J.S. Gruber and the audience at the syntax session at the 25th Annual Conference on African Linguistics (Rutgers University, New Jersey), but of course, all errors are solely mine. This work has been supported by FCAR 94-ER-0578 and SSHRCC 410-93-0897 grants, for which I am grateful.

1 In this paper, as in many previous analysis of Serial Verbs, we shall base our discussion on "dual headedness". The extension of the findings in the paper to multi-headed Serial constructions is the focus of a forthcoming paper.

2 Edo Language is spoken in the mid-western area of Nigeria (in modern day Edo State). It is classified as a member of the Kwa group of languages under the Niger-Congo branch of the Niger-Kordofanian family (Greenberg 1963, Elugbe & Williamson 1977) It is assumed that the conclusions derivable from Edo language data will generalize to the other languages that serialize, especially those of the Kwa group.

BEST COPY AVAILABLE

(2) òzó rhié úyì kpàá
Ozo take Uyi leave
'Ozo left with Uyi '

(3) òzó gbé ẹ́khù lá òwá
Ozo hit door enter house
'Ozo hit the door into the house (ambiguous)

(4) òzó lá úgbó rré
Ozo pass farm arrive
'Ozo came via the farm'

(5) òzó yá ẹ́khù suá úyì lá óréré
Ozo use door push Uyi enter outside
'Ozo used the door to push Uyi outside'

In 1-5 the actions expressed by the verbs are not separate discontinuous ones but rather they constitute a continum in a sub-eventual complex that culminates in one event reading. A characteristic feature that lends credence to this interpretation is that there are no morphological connectors between the verbs in series (cf Welmers 1973). Thus the Serial Verb Construction is different from the English translation where sometimes a conjunction is used to link the two actions together, and as we shall show in this paper, there is an asymmetric relation between the verbs that is somewhat different from the main versus subordinate clause distinctions in English.

In addition, the Serial Verb Construction has been shown to express a wide range of semantic/grammatical relations.[3] Each of the predicates in sentences 1-5 depict some of these classifications of the SVC. Sentence (1) is purposive (2) is accompaniment (3) result (4) location/direction (5) instrumental.

1.0 The problem and a proposal

The precise nature of the notion of "functional relationships" used in describing the SVC has been the focus of much of the research on the SVC (cf. Stewart 1963, Williamson 1965, Bamgbose 1974, Awobuluyi 1973, Lord 1970, George 1975, Stahlke 1970, Lawal 1986, Oyelaran 1982, Agheyisi 1986, Awoyale 1987-88, Ekundayo & Akinnaso 1983 etc). Two patterns of interaction can be noticed in sentences 1-5: (a) that between the arguments of the verb (b) that between the meanings of the verbs. The interaction between (a) and (b) would explain why, for example, in 1, 2 and 4 above the second verb theta marks its complement indirectly, while in 3 and 5 there is direct theta role assignment to the complement of the second verb. However, previous analyses of the SVC have concentrated either only on (a) or (b) as is reflected in their approach to the fundamental question of whether the principles of Verb Serialization derive from structure[4] or the lexicon?[5]

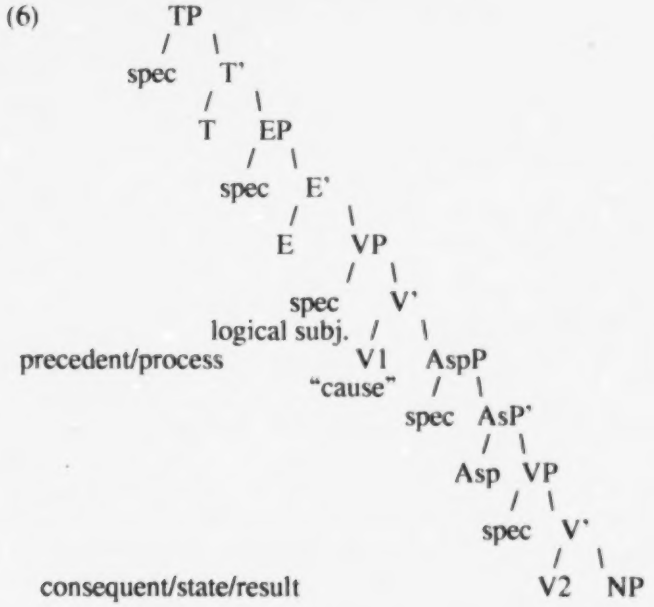
3 Oyelaran (1982) lists as many as fifteen different types of SVCs for the Yoruba language.
4 See Schachter 1974, Dechaine 1993, Baker 1989, Larson 1991 for discussions

ASYMMETRY OF SERIAL VERBS IN THE EDO LANGUAGE

In this paper we present a systematic way to characterize the notion of "functional relationship". Following Travis (1991, 1994) we propose an analysis of the SVC which is both structural (derivational) as well as lexical (meaning to structure mapping) and encompasses the interaction between argument structure and meanings of the verbs. From this, we shall conclude on the asymmetric relationship between the verbs in series.

To reach this conclusion we shall begin by proposing in section one that the VP shells analysis (Larson 1988) is overtly relevant for, and born out by, the SVC.[6] Next, under section two we shall show that there is an Event Phrase [EP] that dominates the layered VPs which captures the single event-hood of the serial predicate. Finally, in section three we shall show that the common assumption that there is only one tense/aspect specification for the chain of verbs in the SVC[7] is wrong. Based on this, we argue for Inner Aspect [AspP] projection between the VPs separate from a TP projection above EP. The resulting structure which we propose for the SVC is as in (6):

(6)



Ultimately, given this structure in (6) we shall show that the first verb V1 and the second verb V2 are asymmetric in respect of several semantic and grammatical phenomena. Here now are four different ways of viewing the asymmetric relationships between the verbs in series viz: (i) Thematic Relations (ii) Thematic Hierarchy (iii) Event structure (iv) Syntactic relation/features.

---

5 See George 1975, Awoyale 1988, Lefebvre 1991, Li 1991, Bodomo 1993, Gruber 1992 for discussions

6 This is different from the claim in Awoyale (1988) where a V-bar layering is proposed.

7 See Bamgbose 1974, Baker 1989, Muysken 1988 etc

1.1 Thematic Relations: Precedent and consequent relations

Gruber (1992a/b) has argued that the phenomenon of "object sharing" that is described in structural terms in Baker (1989) derives from the same principles that constrain the thematic configurations expressed by constructions headed by single lexical items. From our perspective, this implies that there is some "coherence condition" that allows certain lexical relations to be contained within the meaning of a verb. For example take the verb "smash" in English. It includes the semantic dimensions of CAUSATION-CONTACT-STATE as part of its lexical entry as in (7).

(7) John smashed the window to pieces

This sentence can be interpreted as John CAUSED[8] himself to get in CONTACT with **the window** (instrument is unexpressed) and then **the window** changed its STATE and got broken. Thus, the verb (smash) "incorporates" at least two semantic dimensions; CONTACT-STATE. Notice that the "shared NP" **the window** receives two θ-roles as would be expected from the two semantic dimensions contained in the meaning of the verb. The "shared NP" is the *goal* of CONTACT and also the *theme* of STATE.

In a serial language these semantic dimensions are re-analysed, hence serialised, into sub-events (cf George 1975, Agheyisi 1986 etc). For example, consider the expression of the meaning of "smash" in Igbo and Edo languages as in (8) & (9) respectively:

(8) Okute gba-ji-ri oche
stone hit-break-past chair
'The stone smashed the chair'

In this Igbo language example, the semantic dimensions included in "smash" are expressed in a compound structure and not a serial structure. However, although (8) does not illustrate "object sharing" overtly since no Agent role is expressed, the relevant point for us is that the semantic notions of CONTACT & STATE contained in "smash" are fleshed out and expressed by the V-V compound. The same is true also in the Edo SVC, for example;

(9) úkpù dègbé òtọ̀ guọ̀ghọ́
cup hit ground break
'The cup smashed against the ground'

In (8) and (9) we find the semantic dimensions of CONTACT-STATE being serialized within a predicate. To get the overt illustration with "object sharing" consider the example in (10):

8 In this approach to Thematic Relations, Agent is expressed as source of CAUSE, it is however true that Agent can be unexpressed e.g in the sentence
(i) The window smashed to pieces
thus the semantic dimension of CAUSE is optional in the lexical entry of "smash"

(10) òzó suá **úkpù** guọ̀ghọ́
Ozo push cup break
'Ozo pushed the cup and it got broken'

In (10), **ukpu** is the *goal* of CONTACT, and *theme* of STATE, hence it is the "shared object". Consequently, it can be stated that in the process of lexical formation, at least for verbs, "incorporation" and "serialization" are both governed by the same set of "universal coherence conditions" such that within the complex thematic configurations of the verbs the following basic characteristics can be observed: (a) iconic ordering (b) precedent/consequent relation. The interaction between (a) and (b) ensures, for example, that CONTACT relation must precede STATE relation in the lexical composition of the verb "smash" across languages. In the SVC, it is easy to see the implication of "coherence conditions" for semantic relations by saying that the initial verb (V1) is the precedent semantic relation and the final verb (V2) is the consequent semantic relation.

This generalization is true for the sentences in 1-5 above where the meaning expressed by the first verb in the SVC must precede that expressed by the second verb.[9] An attempt to reverse the position of occurence of the verbs will result in ungrammaticality as the following examples show:

(11) *ozo ɾri evbare le
Ozo eat food cook

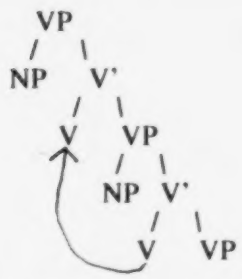
(12) *ozo kpaa Uyi rhie
Ozo leave Uyi take

This means that the there must be some principle that determines the nature and position of verbs in the SVC. We have called such a principle "coherence conditions" but a clear account of this notion and its implications lies well beyond the scope of this paper, albeit our present focus being the characterization of the asymmetric functional relations between the verbs in the SVC.

A consequence of the precedence/consequence distinction is that we would expect this to be maintained in the relevant syntactic structure for the SVC, and the VP shells structure of Larson (1988) provides the right frame into which we can fit the SVC. In Larson's tree, it is reasonable to assume, as pointed out in Travis (1991), that the two VPs were in fact just two segments of the same VP, however in the SVC the two VPs are real as "they have life of their own". Whereas there is the need for the verb to "raise" in the Larsonian version of the VP shell proposal (1988, 1991):

9 There are other ways in which the relationship between the verbs in the SVC have been described e.g in Awoyale (1987) the terms "inclusion" and "exclusion" were used. While we believe that such an approach is desirable, it is however a consequence of that which we make between precedence (V1) and consequence (V2) since whether or not a verb is "inclusive or exclusive" it must have the characteristics of (i) iconic ordering (ii) precedent/consequent relations as its basics.

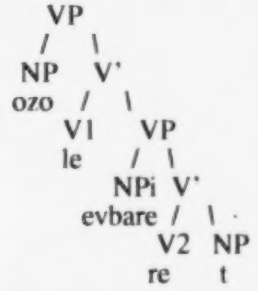
(13)



We find that this structure in (13) with the feature of "verb raising" is not adequate for the SVC because we already have two verbs in the construction which we should expect to, and in fact do, head separate VPs from which we can get a straightforward account for some of the peculiar characteristics of the construction as we shall show subsequently. Thus, for (14) we propose the structure in (15).[10]

(14) òzó lé èvbàrè ré
Ozo cook food eat
'Ozo cooked the food and ate'

(15)



Two questions arise at this point: (a) what are the conditions for deletion (raising?) of the NP complement of the second verb?[11] (b) How do we defend the proposal that the lower VP contains an NP, or that it is indeed a VP? (as suggested in footnote 12)

10 In this structure, we assume the VP internal subject hypothesis. Generally, the NP subject in the SVC presents no problems, however following the proposal that we develop here it is the NP object that presents far reaching implications for the SVC. According to this structure, the NP in Spec of lower VP is the shared object to which the internal theta role of V2 is assigned (Baker 1989). There remains the question of how far reaching is the claim that "object sharing" characterises the SVC?, we believe that the answer may have to do with the lexical relationship between V1 and V2.

11 An approach to this question is contained in Baker's (1989) proposal concerning "object sharing", however our claim in this paper is that "object sharing" is a consequence of the asymmetric relation between the verbs in series, thus we allow for SVCs in which the second verb has a phonetically realised NP complement. In this case, the second verb assigns a theta role directtly to its complement after which it (the NP) moves into the Spec of AspP (see section three below), thus there is no "object Sharing" in the sense of Baker (1989).While we do not fully develop the details of this observation in this paper its basic structure is however presented in section 1.2 below.

ASYMMETRY OF SERIAL VERBS IN THE EDO LANGUAGE

In Stewart (1987) substitution and insertion tests were used to answer (b). The insertion test has to do with adverb placement[12] before each of the verbs in the SVC as the following examples show:

(16) òzó gìégié lé èvbàré ré
Ozo quickly cook food eat
'Ozo quickly cooked the food and ate'

(17) òzó lé èvbàré gìégié ré
Ozo cooked food quickly eat
'Ozo cooked the food and ate it quickly'

(18) òzó gìégié lé èvbàré gìégié ré
Ozo quickly cooked food quickly eat
'Ozo quickly cooked the food and quickly ate it'

As 16-18 show, each of the VPs in the serial construction can be modified by an adverb. In (16) only the first VP is modified, while in (17) only the second VP is modified. In (18) both VPs are simultaneously modified. If adverb placement confirms the VP status of each of the verbs, then indeed using the VP shells is the right structure for the SVC as opposed to the V-bar structure proposed in Awoyale (1988).

For the substitution test which has implications for the (a) and (b) questions, all purpose generic verb "ru" (do) was used to show that the second verb has an NP complement which is the same as the direct object of the first verb. For example:

(19) vbé òzó á lé èvbàré rú
what Ozo clitic cook food do
'What did Ozo cook food to do'

The answer to (19) can only be (20) and not (21)

(20) Té ọ́ rrí órè
? he eat it
'It is such that he eat it (the food)'

(21) *Te o re
? he eat

(21) is ungrammatical because the argument structure requirement of the verb "eat" is not met. In sum, we have shown in this section that there are (at least) two VPs in the SVC. These VPs are semantically asymmetric i.e, VP1 expresses a precedent relation while VP2 conveys a consequent/state/result relation. Oftentimes in the SVC, the first and second verbs share a common NP argument, but based upon our substitution and insertion tests above the second verb governs an empty category (e.c) or a trace which is co-indexed with the shared NP argument (cf. Collins 1994,

12 The aim here is simply to show the VP constituency, since by and large adverbs basically modify verbs, hence verb phrases. For scope interpretation with adverbs see section 2.1 below.

for discussion of the status of empty categories in the SVC). The implication of the foregoing for syntactic structure is that we can account for the co-indexation as well as theta assignment facts by representing the dominance relation between the VPs such that VP1 will dominate VP2 as shown in (15).This way we have confirmed the asymmetric relations between the verbs in terms of structure departing from the representation in Baker (1989), Larson (1991) etc. i.e, the precedent verb will be the head of the upper VP while the consequent verb will head the lower VP.

1.2 Thematic Hierarchy

Another piece of related evidence in support of our distinction between precedent V1 and consequent V2 comes from the predictions of Thematic Hierarchy. In particular, we shall use a version of the hierarchy as proposed in Larson (1988:382-83) which also highlights the similarity that we draw between the VP shells structure and the evidence from verb serialization. This hierarchy is represented in (22) below:

(22) (a) Agent>theme>goal>location (and any other obliques)
(b) If a verb α determines θ-roles θ1, θ2--------θn, then the lowest role on the thematic hierarchy is assigned to the lowest argument in the constituent structure, the next lowest role to the next lowest argument, and so on.

There are several proposals which support the predictions of this hierarchy. In Stewart (1990) it has been shown that the position for locative verbs in the SVC in the Edo language is V2. Variously, the second verb has been analysed as being a case assigner (Dechaine 1988, Muysken 1988, Laniran & Sonaiya 1988 etc) and more specifically as a goal/locative case assigner in Stewart (1990). This brings us to an interesting discussion raised in section 1.1 concerning the status of the notion of "object sharing" as being a major diagnostic for the SVC. Based on the Thematic hierarchy above the prediction is that if an SVC has two verbs each with their complements, V2 will assign the lowest θ-role on the hierarchy to its complement, or else if V2 does not have a phonetically realized complement it will assign its internal theta role to the complement of V1[13] (object sharing). Consider the following examples:

(23) òzó gbé ẹ́khù lá òwá
Agent theme goal
Ozo hit door enter house
'Ozo hit the door into the house' (ambiguous)

(24) òzó mú ẹ́wù yọ́
Agent theme
Ozo carry shirt wear
'Ozo put on a shirt'

13 Some aspects of the specifics of this is discussed under section 3.5 below.

(25) òzó khián rré
Agent
Ozo walk arrive
"Ozo walked to get here'

(23) is ambiguous because it could mean that either 'Ozo went into the house' or that 'the door went into the house'. When it is the door that moves into the house, we get the object sharing reading but not so when it is the NP subject that moves. On the view that "object sharing" characterises SVC it is very hard in this situation to justify why one reading of (23) should be SVC and the other something else (covert coordination? Baker, 1989) since they would both have the same surface syntactic structure.[14] The implication here is that there is something more to the SVC than the feature of "object sharing", and this is our proposal in this paper that analysis of the serial construction should be based on both the meanings of verbs as well as their argument structure that would capture the asymmetry of the verbs in the SVC with all the attendant peculiarities.

Sentences (24) and (25) above conform with the predictions of the Thematic hierarchy. In (24) there is object sharing as the NP object "ẹ́wù" receives two theta roles; a direct θ-role from V1 and the internal θ-role of V2 indirectly. In (25), there is only one NP in the sentence and that is the subject, no shared object, and therefore the subject is assigned θ-role of Agent by both verbs[15] as predicted by the hierarchy.

Crucially in this section, based on the predictions of Thematic hierarchy,we observe the asymmetry between the verbs where the second verb introduces arguments that are lower in the hierarchy.

2.1 Event structure

So far, we have shown that an analysis of the SVC must include the contribution from the meaning of the verbs as well as the arguments that they take, and this has been shown to have a correlation in syntactic structure. In many recent studies of the SVC as complex predicates, the idea of Event structure has gained prominence (see Bamgbose 1986, Bodomo 1983, Li 1991, Dechaine 1993, Larson 1991, Awoyale 1988 etc).

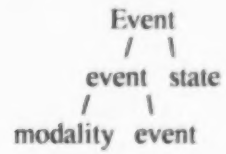
This approach to the analysis of the SVC becomes significant in the light of the proposal in this paper, and as observed in Dechaine (1993) that an account of SVC that is based solely on thematic relations that hold within the construction is one-sided since the reference will be merely to the NP arguments, to the exclusion of the verbs. In addition she shows that significant redundancies arise from such an approach, thus following Awoyale (1988) it is argued that analysis of the SVC should also be based on the relations between the verbs, hence Awoyale's "semantic template" is presented as "predicate linearization" which replaces the

14 See Larson (1991) for similar observation in respect of Hale's (1991) analysis of Misumalpan V-Chaining versus Serialization where both constructions have similar syntactic structure.

15 This suggests that Verb serialization is determined in the lexicon as a unit but becomes separate in the syntax. (see Lefebvre 1991, Li 1991 for similar observations).

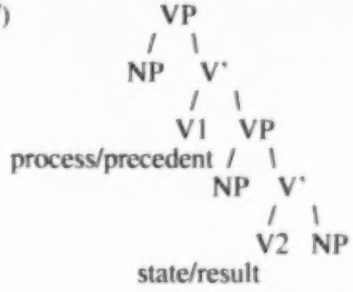
thematic hierarchy in respect of an analysis of the SVC. The resulting structure is as in (26):

(26) Predicate linearization structure[16]



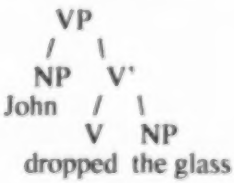
This Event structure bears some relationship with Pustejovsky (1988, 91) classification of "event structure" types into Process, State, Transition. In particular, we draw a connection between Process/achievement in (6) and event in (26) on the one hand and between State in (6) and State[17] in (26). This is represented in the tree in (27):

(27)



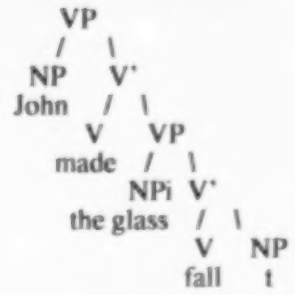
One way to fully illustrate this claim is to contrast "causatives" in English and Edo languages. In English there are two ways to express "causation": zero cause as in (28) and syntactic/periphrastic cause as in (29):

(28) John dropped the glass



16 This structure is similar in some respects to the one which we have proposed in this paper. The only difference is that under our analysis there is the explicit correlation between meaning and structure. In addition, it should be noted that under our analysis the focus is on the relationship between "event" and "state" from the wide range contained in the template of Awoyale (1988).
17 We leave out discussion of Transitions for present purposes.

(29) John made the glass fall



Similarly, we claim that much of the SVC behave like the syntactic/periphrastic causative of English. This is consistent with our proposal that underlying every serial construction is the relation of precedence/consequence holding between the verbs, thus the action of the first verb "causes" and hence "results" in the action of the second verb, or that the "result" expressed by V2 is dependent on the action of V1. Consider the following examples:

(30) ózò suá úyì gué ùvún
Ozo push Uyi cover hole
'Ozo pushed Uyi to cover the hole'

(31) ózò sí íràn kòkó yè òwá
Ozo draw them gather in house
'Ozo gathered them together in the house'

In (30) and (31), we notice that the first verb expresses a precedent action while the second verb expresses a consequent action, thus V1 in (30) "causes" Uyi to cover the hole. Support for this asymmetry can also be found in Travis (1991) where, following ideas of Sportiche (1990), Hale and Keyser (1990) and Speas (1990), she argued that Larson's top V at least has semantic content ('cause'). This is similar to the 'precedent/cause' function that we have assigned to the first verb in the SVC.

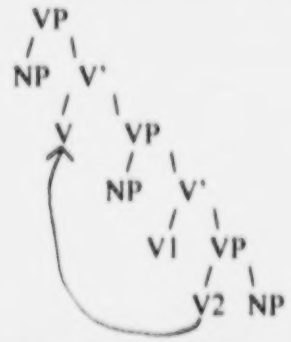
To show the 'consequent/state' function of the second verb in the SVC we present an argument from Pustejovsky (1988) used in dividing events based on differences in scope. What is relevant here is the scope of an adverb. In a situation where an adverb like "almost" may modify either the first event we get a PROCESS reading, but if it modifies only the second event we get a STATE reading. Consider the following example and the two possible interpretations (a) & (b):

(32) òzó té sua ukpu guogho
Ozo almost push cup break
(32a) Ozo almost pushed the cup to break.
(32b) Ozo pushed the cup and it almost got broken (but did not)

In (32a) we have a PROCESS reading, while in (32b) we have a STATE reading. Against this background we have come full circle in showing the asymmetric relationship between 'process and precedent and cause' being associated with the first verb, and 'state and result and consequent' being associated with the second verb as expressed by the structure in (6).

The relevant syntactic representation of the SVC must therefore provide for the feature of its single Event-hood. One way to handle this idea is as proposed in Larson (1991) in which the relevant syntactic structure places the first verb and a VP (headed by the second verb) as sisters under a V-bar under one VP projection after which the first verb raises into the higher VP as (33) shows

(33)



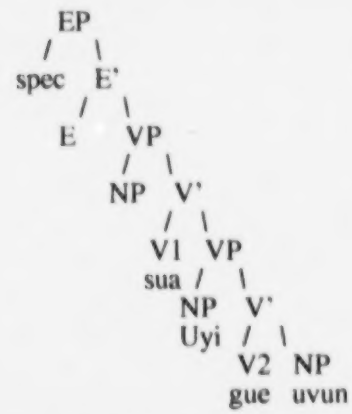
While this proposal seems to have structural simplification over that proposed, for example, in Baker (1989) in terms of accounting for the phenomenon of "object sharing" in structure, it however raises problems of its own. For one thing, as admitted in Larson (1991) it is not clear how to defend the status of the lowest VP except to say that it finds an echo in the secondary predicate structure of English.[18] However, it has been shown in Lefebvre (1991) and Baker (1989), and as we claim in this paper, that the verbs do not raise in the serial construction since generating them as in (33) will violate the lexical entry of the first verb. In fact, under our present account using the arguments relating to case filter and theta criterion as suggested in Larson (1991) would not support a "verb raising" account for the SVC because the question would be why should it be so when the same case and theta role facts can be accounted for if the verb remains in situ. Jackendoff (1990) has argued in the same manner against the structural convenience of "verb raising" (cf. Larson 1988) in the VP shell structure.

Given our arguments against "verb raising" proposal in terms of the structure of the SVC in Larson (1991) we take recourse in that contained in Travis (1994) in which both VPs are dominated by an Event Phrase EP.[19] Consequently, (30) will have the representation in (34).

18 See Stewart (1994a) for a discussion of this proposal

19 Apart from the fact that this proposal has structural advantage over that in Larson (1988) by presenting a straightforward way to account for the single eventhood of the sub-eventual parts that make up the SVC, we have no other way to justify the functional category EP for now in this morphologically poor language.

(34)



Under this proposal, the problem of verb raising does not arise as both verbs head their separate VP projections as the substitution and insertion tests above confirm. In addition, we assume that V1 can assign theta role to the NP in the Spec of a functional category (inner aspect) as we shall discuss under 3.3 below.[20]

To sum up, we have claimed that the verbs in the serial predicate head their own VPs and do not undergo any form of raising thus the first verb heads the higher VP while the second verb heads the lower VP, but both VPs are dominated by an Event Phrase indicative of the single event-hood of the SVC. In the next section, we shall show that there is the need for a functional category AspP in between the VP projections.

3.0 Syntactic features and the asymmetry of serial verbs

One of the common assumptions about the serial construction is that there is one tense/aspect specification for the chain of verbs (Bamgbose 1974, Baker 1989, Muysken 1988 etc). Very little work has been done on the relationship between the elements of INFL and the Serial Verbs. In 3.1, we shall show that while it is the case that there is only one tense specification for the chain of verbs, it is however possible to have an Inner Aspect on V2 (head of the lower VP projection) (cf. Travis 1991).

3.1 SVC and Tense

There are two ways to mark Tense in this language; morphologically and tonally. Non-past action is marked by a low tone as in (35) while past action is indicated by a high tone as in (36). Future is marked by the lexical item "gha"[21] as in (37):

20 The relevant details of the theta assignment process will be the focus of future research.

21 As we shall show in section 3.3, sentences in which the future morpheme "gha" occur before the second verb without a preceeding subordinate clause marker "ne" can not be translated as meaning "future" but can only imply "iteration"

(35) òzó dẹ́ ẹ́wé gbè "Ozo buys a goat to kill"
(36) òzó dẹ́ ẹ́wé gbé "Ozo bought a goat and killed it"
(37) òzó ghá dẹ́ ẹ́wé gbe "Ozo will buy a goat to kill"

It is however not possible for the first verb in the SVC to be non-past while the second is past, such a sentence will be ungrammatical (as well as non-sensical) as (38) shows:

(38) *Ozo de ewe gbe "*Ozo buys a goat and killed it"

The difference between Edo tense system and for example, the English tense system in this regard may seem to be the fact that while subordinate clauses in English can appear as infinitives the same is not true in the Serial Verb Construction. Both the first verb and the second verb have to agree in tense in the Serial Construction. In principle, one may expect that it is possible for the first verb to be either past or non-past and the second verb would be future. Strictly speaking, this is not possible in the Edo Serial Construction . Such meaning would have to be expressed as in (39):

(39) òzó dẹ́ ẹ́wé nè ọ́ gha gbé "Ozo bought a goat that he will kill"

Here, a true subordinate clause is used introduced by "ne". For this reason the asymmetry that we propose between the verbs in the SVC is not in the sense of a "main" versus "subordinate" but rather one that involves a relation in the lexicon that determines their sensitivity to different semantic and grammatical phenomena. To illustrate this asymmetry in respect of the sensitivity of the verbs let us consider the scope of negation in the Edo serial verb construction.

3.2 SVC and the Scope of Negation

There are two negation markers in the Edo language; "má" and "i ghi".[22] "ma" can have scope over the entire serial construction as (40) show:

(40) òzó má lé èvbàré ré
Ozo not cook food eat
'Ozo did not cook food and (did not) eat'

However, there is a second reading for (40) in which "Ozo ate (something) but did not cook the food)". Under this reading, the scope of negation is over the first verb only. It is however not possible to insert the negation marker before the second verb so that it will have scope over it as in (41)

(41) *Ozo le evbare ma re

While this test may have implications for the status of the lower VP an exploration of which we shall not go into in this paper, it is however the case that the fact that

22 "i ghi" more correctly translates as (no longer) and we are not clear under what contexts it is used, thus we shall carry out this test on the scope of negation using the regular negation marker "ma" (not)

only the first verb can have independent scope from the second supports our proposal with respect to the the asymmetry of the Serial verbs.

3.3 SVC and iteration (inner Aspect with V2)

We mentioned under 3.1 that there are two types of "gha" in the Edo language, one that implies future when it occurs before the first verb and another that implies iteration when it occurs with the second verb as the following examples show:

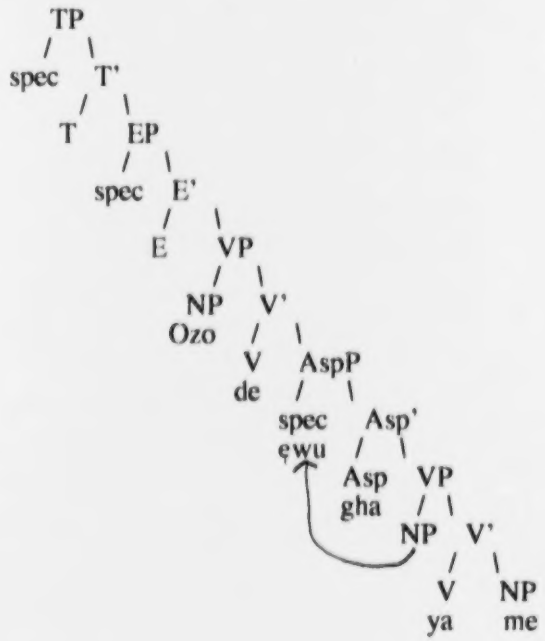
(42) òzó ghá dẹ́ ewe yá mẹ̀
Ozo Fut. buy goat present me
'Ozo will buy a goatfor me'

(43) òzó dẹ́ ewe ghá yá mẹ̀
Ozo buy goat Ite. present me
'Ozo buys a goat repeatedly for me'

(44) òzó ghá dẹ́ ewe ghá yá mẹ̀
Ozo Fut. buy goat Ite. present me
'Ozo will buy a goat repeatedly for me'

The implication here is that we are led to depart from earlier structures of the SVC (cf. Baker 1989, Awoyale 1988, Larson 1991 etc) and posit a functional category Inner Aspect [AspP] between the asymmetric VPs which will encode the Aspectual features of iteration on V2 as (45) illustrates:

(45)



In this structure, the verbs are generated as heads of their separate VP projections. The theme NP (ewu) raises into Spec AspP not only to satisfy the requirement of "object sharing" which is one of the characteristics of the asymmetric relation between Serial Verbs and their argument structures in the SVC. The movement into Spec of AspP is also for the satisfaction of the case filter, as well as to have the number agreement features (where present)[23] to be checked off by the verb which in this case moves and adjoins to the head of AspP in the required spec, head configuration for licensing Agreement in the Minimalist Program (Chomsky 1992).

3.4 Deriving the Structural Similarities between Verbal and Nominal Structures (Inner Aspect equals Inner tense)

One implication of this proposal in respect of the functional category Aspect is the structural correlation that it allows us to make in terms of iteration and plurality between verbs (VPs) and nouns (NPs). This correlation has been discussed in Travis (1992) where she argued citing Jackendoff (1990:29) that in conceptual structure, iteration is an operator which maps a single event to multiple events and 'has exactly the same semantic value as the plural marker'. The interaction between iteration and plurality is manifest in the Edo language as the following examples show:

(46) òzó dẹ́ ebe yá mẹ̀ "Ozo bought a book for me'
Ozo buy book present me

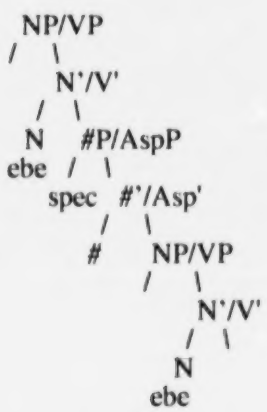
(47) òzó dẹ̀lẹ̀ èbé yá mẹ̀ "Ozo bought books for me'
buy+plu books present me

(48) òzó dẹ̀lẹ̀ èbé bé yá mẹ̀ "Ozo bought book after book for me"
buy+plu book after book present me

In (46) the theme NP raises into spec of AspP for case reasons and not number agreement. In (47) and (48) however, the movement of the theme NP into Spec AspP is for both case and agreement reasons. Notice however that the contrast between (47) and (48) shows that there are two ways to indicate plurality on nouns. In (47) this is shown by the [-lẹ] agreement morphology on the verb with the NP being bare of any inflections. In (48) however the feature of number is shown by the reduplication on the NP as well as the agreement morphology on the verb. Following (Travis 1992, Pi & Stewart (forthcoming)) the internal structure of the object NP in (48) will look like (49)

23 See Stewart (1994b) for details.

(49)



Thus, iteration/plurality is encoded in Aspect in the form of either "gha" morpheme, or [-lv] suffix on the verb as in (47), zero morpheme, or NP reduplication as in (48) (cf.Stewart 1994b). Under the derivation that we propose, the verb raises into the head of AspP and adjoins to "gha" while the theme NP moves into the spec of Aspect providing a Spec-head configuration under which the number agreement features can be checked-off by the verb.[24]

Given the behavior of the "gha" morpheme in this language which can only be future tense in pre-V1 position but denote iteration in pre-V2 position illustrating the similarity between Inner tense with NPs and Inner Aspect with VPs, we can conclude on the asymmetry of the Serial verbs in respect of the syntactic feature of iteration/tense.

3.5 SVC and the Unergative/Unaccusative distinction

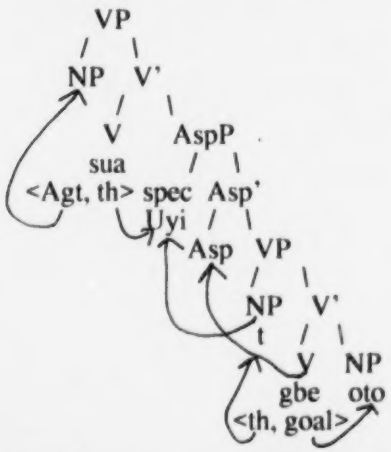
It has been noted in Baker (1989) that quite generally in the SVC in which the initial verb [V1] is transitive and the second verb [V2] is intransitive, the latter must be unaccusative and not unergative. This would allow for the possibility of "object sharing". Extending this observation further, Larson (1991) suggests that the lower VP headed by the second verb in the serial construction is like the secondary predicate structures of English. Under both proposals, the internal theta role of the second verb is assigned indirectly to the direct object of the first verb. Without going into the merits and demerits of both proposals, one thing is clear and which is that they both recognise an asymmetry in respect of theta role assignment by the verbs in series. Given the facts of case filter and number agreement as we have shown in 3.3/4, we argue that, under our proposal, the theme NP starts out in the Spec of lower VP and moves into Spec of AspP after the verb has moved and

24 Given the Minimalist program in which Agreement features are checked off under Spec-head relation in a functional category, and assuming that number agreement features are strong on the verb in the Edo language, the question is how do we account for the fact that each verb in the SVC would need to have its features checked off (see Collins 1994 for related problem). Problems such as this lends credence to the unexplored proposal that we have suggested in this paper that serialization seems to be a relation between verbs in the lexicon.

adjoined to the head of AspP. Consider the sentence in (50) as well as the tree in (51):

(50) òzó suá úyì gbé òtò
Ozo push Uyi fall ground
'Ozo pushed Uyi to the ground'

(51)



Under this derivation we argue that the movement of the theme NP into Spec of Aspect is necessitated by the argument structure requirement of the verbs and the interaction of case filter and number agreement facts. Notice that the lower verb assigns its internal theta role to the direct object of the first verb "object sharing", while the same NP position receives the theme role as well from the first verb (cf.Baker 1989). This phenomenon expresses the co-assignment possibilities that can take place in the serial construction, and we claim that such co-assignment is licensed by some "coherence condition" such as that which allows semantic information to be serialized in a serial language or incorporated in a non-serial language, for verbs, as we have argued in section one of this paper.

This distinction in terms of argument structure encoded in the syntactic function of the verbs in the serial construction buttresses the feature of asymmetry that we are discussing in this paper such that V1 is transitive and assigns theta role directly to NP object, while V2 is likely to be intransitive and assigns theta role to the NP object indirectly.

3.5 SVC and "bleached verbs" or grammaticalized V2

Thus far, we have shown that different phenomena are sensitive to each of the verbs in the serial construction. It has been shown in Agheyisi 1986, Stewart 1991 etc that many instances of serialization involve a deverbalization or bleaching of the meanings that they express. In particular, Aitchison (1989) has enumerated the stages in which an element in a verbal category develops to become, for example, a particle. In particular, how Tok Pisin grammaticalized the verb "save" into the habituality particle "sa". The following are the stages enumerated:

(i) Initially, there is verb serialization
(ii) It involves meaning alteration: "bleaching"
(iii) Phonological reduction
(iv) Reanalysis of the reduced verb as a preverbal particle
(v) Increasingly frequent, redundant use

This same process has been described in Stewart (1991) where it has been shown that when the process of grammaticalization occurs, it is most likely to target the second verb, or where it targets both we get idiosyncratic readings from the construction. Consider the examples below:

(52) òsànóbuá fián ùmámwẹ̀n gbé úyì
God cut prosperity hit Uyi
'God blessed Uyi with prosperity'

(53) òzó tié èbé gbé
Ozo read book hit
'Ozo reads/studies books very well'

(54) òzó só ìhuán wú
Ozo sing song die
'Ozo sings songs very well'

In (52), the meaning of the two verbs have been bleached to result in the idiosyncratic meaning of "bless" and not "cut/hit". Many compound verbs like in (52) and complex verbs like in (55a,b) in the language are formed via this process. A clearer illustration of the "bleaching" process is shown in (55a/b) where the meaning of the verb "mu" (carry) is "bleached" in (55b) to now convey the semantic expression of "being located on".

(55a) úyìì mú èmátọ̀n
Uyi carry iron
'Uyi carried the iron'

(55b) èmátọ̀n muọ́tòn
iron carry-rust
'the iron has gone rust'

In (55a) the verb "mu" exhibits its full lexical meaning and properties, however in (55b) this occurence of "mu" has undergone grammaticalization/bleaching to form a complex verb[25] and a consequent change from its original meaning to become "rust".

In both (53) and (54) the meanings of the first verbs are not affected by the process of grammaticalization, rather the target is the second verb. In fact, in the light of the asymmetric relation between the verbs in the SVC, it is unlikely that such a process of grammaticalization will target only the first verb to the exclusion of the second verb. This is so because the second verb almost always case marks

25 The term complex verb means morphologically complex, i.e, combinations of a verb plus noun to make a verb.

goal or location etc which as we have shown earlier are arguments that are lower in the Thematic heirarchy. Such functions are similar to those carried out by prepositions, hence the "functional" nature of the second verbs in descriptions of the SVC. This generalisation is reinforced by the facts of "gha" insertion (iteration). Since the second verb in (53) for example has now been bleached to have an adverbial reading, it is not possible for it to have the Inner Aspect "gha" in (56):

(56) *Ozo tie ebe gha gbe

This sensitivity to grammaticalization may underlie the explanation for most of the ambiguities that have been associated with the characterization of the functional relationships between the verbs in the SVC where the verbs, i.e V2, are said to be either prepositions or adverbs (cf. Lord 1970, Stahlke 1970, Bamgbose 1974, Awobuluyi 1973 etc).

Shifting away from the ambiguities in previous analysis, we have now been able to show that the key to understanding the functional asymmetry between the verbs in the SVC lies in a description of their sensitivity to grammatical process such as grammaticalization.

4.0 Conclusion

The phenomenon of verb serialization in the Edo language has been analysed in a fashion that takes the meanings of verbs and their argument structures into consideration to overcome the pitfall of previous analysis. In this approach we have shown that the verbs in series are sensitive to different semantic and grammatical phenomena which underscores their functional asymmetry. Given this fact, we have shown that the relevant structure for the SVC is one that contains the VP Shell hypothesis as well as having a functional category Aspect between them. Under this proposal, the first verb has semantic content being the 'cause/process/precedent' relation, while the second verb is the 'state/result/consequent' relation. Both VPs have been shown to constitute sub-events in the complex event-structure of the serial verb construction .

Generally, we have shown that the same principles of structure and meaning to structure mapping govern both serial and non-serial languages. Although this work does not present a whole account of this "universal coherence conditions" that govern the principles, it however comes out clear that the conditions of (a) iconic relation (b) precedent/consequent relation determine the nature of what is incorporated in a non-serial language but fleshed out in a serial language.

References

Agheyisi, R.N. (1986) "Verb Serialization and Lexical Re-analysis: The Case of Compound Verbs in Edo" *Studies in African Linguistics* Volume 17, #13

Aitchison, J. (1989) "Spaghetti Junctions and Recurrent Routes: Some Preferred Pathways in Language Evolution" North-Holland, *Lingua* 77, 15-171

Awobuluyi, O. (1973) "The Modifying Serial Construction: A Critique" *Studies in African linguistics* 4, 87-110

Awoyale, Y. (1987) "Perspectives on Verb Serialization" Paper presented at 1st Niger-Congo Syntax and Semantics Workshop, Boston University, April 1987.

——— (1988) "Complex Predicates and Verb Serialization," ms., University of Ilorin and MIT, Cambridge, Massachusetts.

Baker, M.C. (1989) "Object Sharing and Projection in Serial Verb Construction" *Linguistic Inquiry* 20, 4. 513-553

Bamgbose, A. (1974) "On Serial Verbs and Verbal Status,"*Journal of West African Languages* 9, 17-48.

——— (1986) "Negation and Serial Verbal Construction types in Yoruba" in Dimmendaal (ed) 1986: 31-40

Bodomo, A.B. (1993) *Complex Predicates and Event Structure: An intergrated Analysis of Serial Verb Constructions in the Mabia Languages of West Africa*. Cand. Philol. Dissertation, University of Trondheim, Norway.

Chomsky, N. (1992) A Minimalist Program for Linguistic Thoery. *M.I.T. Occasional Papers in Linguistics* 1.

Collins, C. (1994) "The Structure of the Serial Verb Construction" Paper presented at the Workshop on "object Positions" in Benue-Kwa. Leiden University (June)

Dechaine, R.M. (1988) "Towards a Typology of Serial Constructions in Haitian" Paper presented at the 1st Niger-Congo Syntax and Semantics Workshop, Boston University.

——— (1993) *Predicates Across Categories: Towards a Category-Neutral Syntax*. PhD Dissertation, University of Massachusetts, Amherst.

Ekundayo, S.A & F.N.Akinnaso (1983) "Yoruba Serial Verb String Commutability Constraints," *Lingua* 60, 115-133

Elugbe, B.O & K.Williamson (1977) "Reconstructing Nasals in Proto Benue-Kwa" in *Linguistic Studies* Volume 2, 333-363

George, I. (1975) "Verb Serialization and Lexical Decomposition," *Studies in African Linguistics*, supplement 6, 63-72

Gruber, J.S. (1992a) "Thematic Configurational Constraints in Serial Verb Constructions" Paper presented at ACAL, Michigan

——— (1992b) "Proper Argument Projection in Igbo and Yoruba" *MITWPL* 17, 139-64.

Hale, K. (1991) "Misumalpan Verb Sequencing Constructions," in C. Lefebvre (ed) *Serial Verbs: Comparative, Grammatical and Cognitive approaches*. Amsterdam/Phil. John Benjamins

Hale, K & S.J.Keyser (1990) "The Syntactic Character of Thematic Structure" ms. MIT Cambridge, MA

Jackendoff, R. (1990) "On Larson's Treatment of the Double Object Construction" *Linguistic Inquiry* 21, 427-455.

——— (1990)*Semantic Structures*. MIT Press, Cambridge, MA.

Larson, R. (1988) "On the Double Object Construction" *Linguistic Inquiry* 19, 335-392

——— (1991) "Some Issues in Verb Serialization" in C.Lefebvre (ed) *Serial Verbs: Comparative, Grammatical and Cognitive approaches*. Amsterdam/Phil, John Benjamins.

Lefebvre, C. (1991) "Take Serial Verb Constructions:Please," in C.Lefebvre (ed) *Serial Verbs: Comparative, Grammatical and Cognitive approaches*, Amsterdam, John Benjamins.

Li, Yafey (1991) "On Deriving Serial Verb Constructions," in C.Lefebvre (ed) *Serial Verbs: Comparative, Grammatical and Cognitive approaches*, Amsterdam, John Benjamins.

Lord, C. (1970) "Serial Verbs in Transition," *Studies in African Linguistics* 4, 269-295

Muysken, P. (1988) "Parameters for Serial Verbs," ms., University of Amsterdam, paper presented at the 1st Niger-Congo Syntax and Semantic workshop, Boston University.

Oyelaran, O. (1982) "On the Scope of the Serial Verb Construction in Yoruba," *Studies in African Linguistics* 13, 109-146.

Pi, T. & O.T. Stewart (Forthcoming) "Deriving the Structural Similarities between Verbal and Nominal Structures," McGill University

Pustejovsky, J. (1988) "Event Semantic Structure" ms. Brandeis

——— (1991) "The Syntax of Event Structure," *Cognition* 41, 47-81

Schachter, P. (1974) "A Non-Transformational Account of Serial Verbs," *Studies in African Linguistics*, supplement 5, 253-270

Speas, M. (1990)*Phrase Structure and Natural Language*, Kluwer Academic Press, Dordrecht, The Netherlands

Sportiche, D. (1990) "Movement, Agreement, and Case," ms. UCLA

Stahlke, H. (1970) "Serial Verbs," *Studies in African Linguistics* 1, 60-99

Stewart, J.M. (1963) "Some Restrictions on Objects in Twi," *Journal of African Languages* 2, 145-149

Stewart, O.T. (1987) Syntactic Configurations of the Edo Serial 'Verbal' Constructions. B.A. project, University of Benin, Benin, Nigeria

——— (1990) "Thematic Relations, Serial Verbs and Prepositions in the Edo language" ms. paper presented at Linguistics Dept. Seminar, university of Benin

——— (1991) "Grammaticalization in a Serializing Language" ms. Cambridge University, Cambridge, England

——— (1994a) "A Review of Larson's Discussion of 'Some Issues in Verb Serialization'" To appear in *McGill Working Papers in Linguistics*,

——— (1994b) "NP Object and Two Types of Agreement in the Edo language" Paper presented at the Benue-Kwa Workshop on "Object Positions" Leiden University, Leiden

Travis, L. (1991) "Derived Objects, Inner Aspect, and the Structure of VP," Paper presented at NELS 22, University of Delware

——— (1992) "Inner Tense with NPs: The Position of Number" in *Proceedings of the 1992 Annual Conference of the Canadian Linguistics Association*, 329-345

——— (1994) "Event Phrase (structure)," Talk given at Rutgers University

Welmers, W.E. (1973) *African Language Structure*. University of California press:London

Williamson, K. (1965) A Grammar of the Kolokuma Dialect of Ijo, Cambridge University press, Cambridge.